Patent claims

1.

A method for providing a hinged guarantee closure for a container, which closure comprises a cap (11; 22; 38) having an integral closing member (12; 23) which can be brought into closing cooperation with an opening in the container, characterised in that the closure is injection moulded in the closed state, i.e., with a guarantee seal, the closure being injection moulded in such a form that the moulded closure will comprise the cap (11; 22) with the integral closing member (12; 23) and a ring member (13; 24; 39), hinge-connected (15; 26) and guarantee-connected (16; 27; 40) to the cap (11; 22), but otherwise axially spaced (21; 32) relative to the cap (11; 22), for connection to the container.

2.

A method according to claim 1, characterised in that the ring member (13; 24; 39) is injection moulded with a coupling part (14; 25) intended for cooperation with a coupling part on the container.

3.

A method according to claim 2, characterised in that the ring member (13; 24; 39) is injection moulded having an internal circumferential snap edge (14; 25).

4.

A method according to claim 1, characterised in that the guarantee connection (40) is made so that it can be seen clearly whether the guarantee connection (40) has been broken or not.

5.

A method for providing a hinged guarantee closure on a container opening, which closure comprises a cap (11; 22; 38) having an integral closing member (12; 23) which can be brought into closing cooperation with the container opening (19; 30), characterised in that the closure is injection moulded in the closed state, i.e., with a guarantee seal, the closure being injection moulded in such a form that the moulded closure will comprise the cap (11; 22; 38) with the integral closing member (12; 23) and a ring member (13; 24; 39), hinge-connected (15; 26) and guarantee-connected (16; 27; 40) to the cap (11; 22), but otherwise axially spaced (21; 32) relative to the cap (11; 22),

and made having a coupling part (14; 25), and that the container (17; 28) is provided with a coupling part (20; 31) that cooperates therewith.

6.

A method according to claim 5, characterised in that the ring member (13; 24; 39) is made having an internal circumferential snap edge (14; 25), that the container (17; 28) is provided with a circumferential groove (20; 31) around the opening, adapted to the said snap edge, and that the moulded closure is pressed with its ring member (13; 24) onto the container (17; 28) so that the snap edge (14; 25) is pressed to snap into the circumferential groove (20;31).

7.

A method according to claim 5, characterised in that the guarantee connection (40) is made so that it can be seen clearly whether the guarantee connection (40) has been broken or not.

8.

A method according to one of the preceding claims, characterised in that the hinge (15) is made in the periphery of the cap.

9.

A method according to one of the preceding claims, characterised in that the hinge (26) is made in a radially indented portion (36) of the cap (22).

10.

A method according to claim 9, characterised in that the indented portion (36) is shaped so as to be outwardly concave.

11.

A hinged guarantee closure for an opening in a container, which closure comprises a cap (11; 22; 38) having an integral closing member (12; 23) which can be brought into cooperation with the opening, characterised in that it comprises a cap (11; 22) with the integral closing member (12; 23) and a ring member (13; 24; 39), hinge-connected (15; 26) and guarantee-connected (16; 27; 40) to the cap (11; 22; 38), but otherwise axially spaced (21; 32) relative to the cap (11; 22; 38), for connection to the container around the opening.

12.
A hinged guarantee closure according to claim 11, characterised by a coupling part (14; 25) on the ring member (13; 24; 39).

13.
A hinged guarantee closure according to claim 11, characterised in that the coupling part on the ring member is an internal circumferential snap edge (14; 25).

14.
A hinged guarantee closure according to claim 11, 12 or 13, characterised in that the hinge (15) is formed in the periphery of the cap.

15.
A hinged guarantee closure according to claim 11, 12 or 13, characterised in that the hinge (26) is drawn radially inwards relative to the periphery of the cap (22).

16.
A hinged guarantee closure according to claim 15, characterised in that the hinge (26) is curved concavely.

17.
A hinged guarantee closure according to claim 11, characterised in that the guarantee connection (40) is formed so that it can be seen clearly whether it has been broken or not.

18.
A container with a hinged guarantee closure for an opening in the container, which closure comprises a cap (11; 22; 38) having an integral closing member (12; 23) which can be brought into closing cooperation with the opening, characterised in that the closure is injection moulded in the closed state, i.e., with a guarantee seal, and comprises a cap (11; 22) with the integral closing member (12; 23) and a ring member (13; 24; 39), hinge-connected (15; 26) and guarantee-connected (16; 27; 40) to the cap (11; 22; 38), but otherwise axially spaced (21; 32) relative to the cap (11; 22), and having a coupling part (14; 25), and that the container is provided with a coupling part (20; 31) that cooperates with said coupling part (14; 25).

19.
A container according to claim 18, characterised in that the coupling part on the ring member is an internal circumferential snap edge (14; 25), and that the container has a groove (20; 31) running around the opening (19; 30) into which the snap edge (14; 25) is snapped.

20.
A container according to claim 18 or 19, characterised in that the hinge (15) is made in the periphery of the cap.

21.
A container according to claim 18, characterised in that the guarantee connection (40) is made so that it can be seen clearly whether it has been broken or not.

22.
A container according to claim 18 or 19, characterised in that the hinge (26) is drawn radially inwards relative to the periphery of the cap (22).

23.
A container according to claim 21, characterised in that the hinge (26) is curved with outward concavity.

AMENDED CLAIMS

[Received by the International Bureau on 17 June 2003 (17.06.03): original claims 1 to 23 replaced by amended claims 1 to 28;]

1.

A method for providing a hinged guarantee closure for a container, said closure comprising a cap (11; 22; 38) having an integral closing member (12; 23) for closing cooperation with an opening in said container, and a ring member (13; 24; 39) for connection to said container around said opening, characterised in that the guarantee closure is injection moulded and formed in the closed state, i.e., with a guarantee seal, the closure being injection moulded in such a form that the moulded closure will comprise said cap (11; 22) and said ring member (13; 24; 39) connected by a hinge element (15; 26) and at least one guarantee connection (16; 27; 40), but otherwise axially spaced (21; 32).

2.

The method of claim 1, characterised in that the ring member (13; 24; 39) is injection moulded with a coupling part (14; 25) intended for cooperation with a coupling part on the container.

3.

The method of claim 2, characterised in that the ring member (13; 24; 39) is injection moulded having an internal circumferential snap edge (14; 25).

4.

The method of claim 1, characterised in that the guarantee connection (40) is made so that it can be seen clearly whether the guarantee connection (40) has been broken or not.

5.

A method for providing a hinged guarantee closure on a container opening, said closure comprising a cap (11; 22; 38) having an integral closing member (12; 23) for closing cooperation with the container opening (19; 30),
characterised in that the closure is injection moulded in the closed state, i.e., with a guarantee seal, the closure being injection moulded in such a form that the moulded closure will comprise the cap (11; 22; 38) with the integral closing member (12; 23) and a ring member (13; 24; 39), hinge-connected (15; 26) and guarantee-connected (16; 27; 40) to the cap (11; 22), but otherwise axially spaced (21; 32) relative to the cap (11; 22), and made having a coupling part (14; 25), and that the container (17; 28) is provided with a coupling part (20; 31) that cooperates therewith.

6.

The method of claim 5, characterised in that the ring member (13; 24; 39) is made having an internal circumferential snap edge (14; 25), that the container (17; 28) is provided with a circumferential groove (20; 31) around the opening, adapted to the said snap edge, and that the moulded closure is pressed with its ring member (13; 24) onto the container (17; 28) so that the snap edge (14; 25) is pressed to snap into the circumferential groove (20;31).

7.

The method of claim 5, characterised in that the guarantee connection (40) is made so that it can be seen clearly whether the guarantee connection (40) has been broken or not.

8.

The method of either one of the preceding claims, characterised in that the hinge (15) is made in the periphery of the cap.

9.

The method of either one of the preceding claims, characterised in that the hinge (26) is made in a radially indented portion (36) of the cap (22).

10.

The method of claim 9, characterised in that the indented portion (36) is shaped so as to be outwardly concave.

11.
A hinged guarantee closure for an opening in a container, said closure comprising a cap (11; 22; 38) having an integral closing member (12; 23) for cooperation with said opening, and a ring member (13; 24; 39) for connection to the container around said opening, characterised by:
said cap and ring member being connected by a hinge element (15; 26) and at least one guarantee connection (16; 27; 40); said guarantee connection generally formed flush with the cap and ring member exterior surfaces; and said ring member otherwise being axially spaced (21; 32) relative to said cap.

12.
The hinged guarantee closure of claim 11, characterised by said guarantee connection being positioned substantially diametrical of said respective hinge element.

13.
The hinged guarantee closure of claim 11, characterised by said cap and ring member generally having similar external diameters.

14.
The hinged guarantee closure of claim 11, characterised in that
said hinge element comprises a spring structure, whereby the cap is biased in either one of an open position or closed position relative to said ring member.

15.
The hinged guarantee closure of claim 11, characterised by a coupling part (14; 25) on the ring member (13; 24; 39).

16.
The hinged guarantee closureof claim 11, characterised in that the coupling part on the ring member is an internal circumferential snap edge (14; 25).

17.
The hinged guarantee closure of claims 11 to 16, characterised in that the hinge (15) is formed in the periphery of the cap.

18.
The hinged guarantee closure of claims 11 to 17, characterised in that the guarantee connection (16; 27; 40) is formed in the periphery of the cap and ring member.

19.
The hinged guarantee closure of claims 11 to 17, characterised in that the hinge (26) is recessed radially inwards, relative to the cap's (22) periphery.

20.
The hinged guarantee closure of claim 19, characterised in that the hinge (26) is curved concavely.

21.
The hinged guarantee closure of claim 11, characterised in that the guarantee connection (40) is formed so that it can be seen clearly whether it has been broken or not.

22.
A container having a hinged guarantee closure for an opening in said container, said closure comprising a cap (11; 22; 38) having an integral closing member (12; 23) for cooperation with said opening, and a ring member (13; 24; 39) for connection to the container around said opening, c h a r a c t e r i s e d by:
said guarantee closure being injection moulded and formed in the closed state, i.e., with a guarantee seal; said cap and ring member being connected by a hinge element (15; 26) and at least one guarantee connection (16; 27; 40); said guarantee connection generally formed flush with the cap and ring member exterior surfaces; said ring member otherwise being axially spaced (21; 32) relative to said cap and having a coupling part (14; 25); and said container being provided with a coupling part (20; 31) for cooperation with said ring member coupling part (14; 25).

23.
The container of claim 22, c h a r a c t e r i s e d in that
the coupling part on the ring member is an internal circumferential snap edge (14; 25), and that the container has a groove (20; 31) running around the opening (19; 30) into which the snap edge (14; 25) is snapped.

24.

The container of claims 22 or 23, characterised in that the hinge (15) is made in the periphery of the cap.

25.

The container of claim 22, characterised in that the guarantee connection (40) is made so that it can be seen clearly whether it has been broken or not.

26.

The container of claims 22 or 23, characterised in that the hinge (26) is drawn radially inwards relative to the periphery of the cap (22).

27.

The container of claim 25, characterised in that the hinge (26) is curved with outward concavity.

28.

The container of claim 22, characterised by said cap, ring member, and container generally having similar external diameters.